renders invaluable service in again arousing us to this great truth
in pointed, biting sentences that seize the attention. His style is
homely and stirring. He wastes few words. Pedantry is absent.
Both author and book are frank and courageous. If they seem to
be radical, it is because here the facts are radical.

<div align="right">T. S. ADAMS.</div>

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Mortality Laws and Statistics. By ROBERT HENDERSON. (New
York: John Wiley & Sons, Inc. 1915. Pp. v, 111. $1.25.)

The purpose of this monograph "to set forth in concise form the
essential facts and theoretical relations with reference to the dura-
tion of human life" is especially well carried out when we con-
sider the small amount of space taken by the author to accom-
plish such a purpose. The work is concerned with life contin-
gencies, excluding monetary applications.

The book begins with brief descriptions of the preparation and
use of the mortality tables that have been of greatest importance in
the development of life insurance in England and the United
States. The mortality tables thus described are: The Breslau
Table, The English Life Tables, The Northampton Table, The
Carlisle Table, The Actuaries' or Combined Experience Table, the
Healthy Male (H^m) Table, The British Offices' Life Tables,
The American Experience Table, The National Fraternal Con-
gress Table, The M. A. Table of the Medico-Actuarial Mortality
Investigation, McClintock's Annuitants' Mortality Tables, and
The British Offices' Life Annuity Tables.

The work next deals with formulas for the probabilities of life
and death and with the mathematical relations between various func-
tions connected with human mortality. The chapter on Formulas
for the Law of Mortality treats the formulas of Gompertz, Make-
ham, Wittstein, and Pearson as means of expressing facts of mor-
tality by frequency functions.

Statistical applications are then taken up to obtain formulas for
the rate of mortality for a stationary population and to indicate
how to make corrections to meet the actual conditions of a
population.

The second half of the work is devoted to the construction and
graduation of mortality tables from the mortality statistics of
general populations and from the mortality experience of life in-
surance companies. In the development of the necessary formulas

the author has kept very close to the applications—a plan which makes this work both readable and very useful. Much is done to render the work concrete by constructing from given census data a Northeastern States Mortality Table, and by showing the various steps involved in the construction of the final table.

There are given in the appendix to the work ten useful mortality tables.

It seems desirable to criticise the use of two mathematical expressions. On page 20, lines four and five, the expression "algebraic function" does not appear to be used in its conventional and well authorized sense; for, a function need not be an algebraic function in the ordinary sense to have a determinate derivative. On page 30, last line, we read that "any mathematical law, however, gives a smooth series which enables formulas of approximate summation or integration to be used . . . ." It is not absolutely clear what the author here means by the expression "smooth series." However, I take the statement quoted above to mean that a mathematical law or function gives a continuous curve. If I am correct in this inference, the statement is too general. Mathematical functions are well known which do not give continuous curves. The author's statement holds if the law is given by a continuous function.

<div align="right">H. L. Rietz.</div>

University of Illinois.

Les Bases Théoriques de la Statistique Agricole Internationale. By Umberto Ricci. (Rome: Imprimerie de l'Institut International d'Agriculture. 1914. Pp. xii, 314. 5 fr.)

This volume by the chief of the General Statistical Office of Italy is a revised and enlarged edition of two papers prepared by him at the request of the permanent committee of the International Institute of Agriculture and read at the meetings of the International Statistical Institute at the Hague in 1911 and in Vienna in 1913 respectively. The original papers were published in the bulletins of the International Statistical Institute.

The first part deals with statistics of acreage and production and the second part with statistics of condition of crops. The treatise takes up in detail the objects and the technical difficulties of agricultural statistics. The author deals entirely with methods and principles and expressly omits all discussion of accuracy of data, selection of field agents, etc., nor does he deal with statistics of live-stock. By thus limiting his field M. Ricci is enabled to de-